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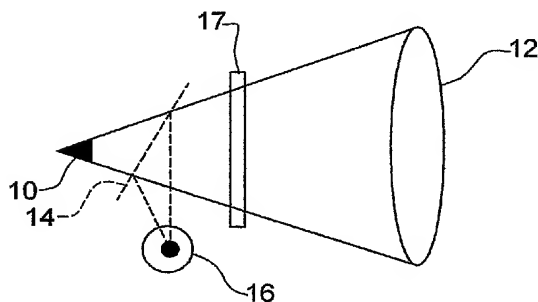
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(54) Title: **ILLUMINATION METHOD AND APPARATUS**



(57) Abstract: Imaging apparatus is disclosed for passive microwave, millimetre wave, sub-millimetre wave or infrared imaging, the apparatus including a receiver (10) for receiving radiation from the scene or subject being imaged, means for directing such radiation onto the receiver, a cold source (16) or a hot source (16), i.e. a source with a low or high black body temperature, and means (14, 14a) for directing the image or shadow of said cold source or hot source onto the scene or subject being imaged. The result is to produce improved contrast in the image obtained. Imaging apparatus is also disclosed for imaging an object (102) in the microwave, millimetre wave, sub-millimetre wave or infrared ranges in which a retroreflector such as a cube-corner reflective array (104) is arranged facing the object and disposed laterally with respect of the line of sight between the object and an imaging device (100) and in which such radiation is directed onto the object, from a radiation source, along a path corresponding to or close to that line of sight. Consequently light from the radiation source, reflected laterally from the object, will be reflected, in turn, by the cube-corner array, back substantially along the path which it followed from the object to the cube-corner array, to be reflected in turn, by the object, back to the imaging device. The apparatus therefore ensures that specularly reflective parts of the object (102) appear bright in the resulting image.



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